

WHAT IS CLAIMED IS:

1           1.       A method performed at a wireless device, the method comprising:  
2           detecting a signal representing an environmental state in the vicinity of the wireless  
3           device;  
4           comparing the environmental state represented by the signal against a set of remotely  
5           programmable rules at the wireless device; and  
6           if the environmental state satisfies at least one of the rules, generating, based on the  
7           satisfied rule, a communication for transmission to a wireless network.

1           2.       The method of claim 1, further comprising:  
2           detecting the environmental state; and  
3           generating the signal representing the environmental state.

1           3.       The method of claim 1, wherein the signal represents sound level.

1           4.       The method of claim 1, further comprising identifying the environmental state  
2           represented by the signal.

1           5.       The method of claim 4, wherein identifying the environmental state  
2           represented by the signal comprises:  
3           determining an environmental condition associated with the state; and  
4           determining a level of the environmental condition.

1           6.       The method of claim 1, wherein at least one of the rules comprises multiple  
2 conditions that must be satisfied.

1           7.       The method of claim 1, wherein the communication comprises a Short  
2 Message Service message.

1           8.       The method of claim 1, wherein the communication is destined for a second  
2 wireless device.

1           9.       The method of claim 1, wherein at least one of the rules specifies a level that  
2 an environmental state must exceed for the rule to be satisfied.

1           10.      The method of claim 1, further comprising:  
2 detecting a request to modify the programmable rules;  
3 determining whether parameters for a rule have been received; and  
4 if the parameters have been received, modifying the rules.

1           11.      The method of claim 10, wherein the request is from a second wireless device.

1           12.      The method of claim 10, wherein modifying the rules comprises adding a new  
2 rule based on the received parameters.

1           13.      The method of claim 1, further comprising:  
2 detecting a request to open a voice channel in response to the communication; and

3           establishing the voice channel using the wireless device.

1           14.     The method of claim 1, wherein at least one of the rules specifies multiple  
2     communications for an environmental state.

1           15.     The method of claim 1, wherein the wireless device comprises a cellular  
2     telephone.

1           16.     A wireless device comprising:  
2                 a sensor operable to detect an environmental state in the vicinity of the wireless  
3 device and to generate a signal representing the environmental state;  
4                 a processor coupled to the sensor, the processor operable to:  
5                     detect the signal representing the environmental state,  
6                     compare the environmental state represented by the signal against a set of  
7 remotely programmable rules, and  
8                     if the environmental condition satisfies at least one of the rules, generate,  
9 based on the satisfied rule, a communication for transmission to a wireless network; and  
10                 a transceiver coupled to the processor, the transceiver operable to wirelessly send the  
11 communication.

1           17.     The wireless device of claim 16, further comprising:  
2                 an audio input device coupled to the processor, the audio input device operable to  
3 detect a user's voice and to generate a signal representative thereof;  
4                 an audio output device coupled to the processor, the audio output device operable to  
5 receive a signal representative of sound and to generate sound representative thereof;  
6                 a visual output device coupled to the processor, the visual output device operable to  
7 receive a signal representative of visual information and to generate visual information  
8 representative thereof; and  
9                 a user-manipulable input device coupled to the processor, the user-manipulable input  
10 device operable to detect user manipulation thereof and to generate a signal representative  
11 thereof.

1           18.     The wireless device of claim 16, wherein the processor is further operable to  
2     identify the environmental state represented by the signal.

1           19.     The wireless device of claim 18, wherein the processor is operable to  
2     determine an environmental condition associated with the environmental state and to  
3     determine a level of the environmental condition to identify the environmental state  
4     represented by the signal.

1           20.     The wireless device of claim 16, wherein the processor is further operable to:  
2     detect a request to modify the programmable rules;  
3     determine whether parameters for a rule have been received; and  
4     if the parameters have been received, modify the rules.

1           21.     The wireless device of claim 16, wherein at least one of the rules specifies a  
2     level that an environmental state must exceed for the rule to be satisfied.

1           22.     The wireless device of claim 16, wherein the processor is further operable to:  
2     detect a request to open a voice channel in response to the communication; and  
3     establish the voice channel using the wireless device.

1           23.     The wireless device of claim 16, wherein at least one of the rules comprises  
2     multiple conditions that must be satisfied.

1           24.    The wireless device of claim 16, wherein the communication is destined for a  
2    second wireless device.

1           25.    The wireless device of claim 16, wherein the wireless device comprises a cellular  
2    telephone.

1           26.    An article comprising a machine-readable medium storing instructions operable to  
2    cause one or more machines to perform operations comprising:

3               determining whether a signal representing an environmental state in the vicinity of a  
4    wireless device has been detected at the wireless device;

5               comparing the environmental state represented by the signal against a set of remotely  
6    programmable rules at the wireless device; and

7               if the environmental state satisfies at least one of the rules, generating, based on the  
8    satisfied rule, a communication for transmission to a wireless network.

1           27.    The article of claim 26, wherein the instructions are further operable to cause one  
2    or more machines to perform operations comprising identifying the environmental state  
3    represented by the signal.

1           28.    The article of claim 27, wherein identifying the environmental state represented  
2    by the signal comprises:

3               determining an environmental condition associated with the state; and

4               determining a level of the environmental condition.

1           29.    The article of claim 26, wherein at least one of the rules comprises multiple  
2    conditions that must be satisfied.

1           30.    The article of claim 26, wherein the communication is destined for a second  
2    wireless device.

1           31.     The article of claim 26, wherein at least one of the rules specifies a level that an  
2     environmental state must exceed for the rule to be satisfied.

1           32.     The article of claim 26, wherein the instructions are further operable to cause one  
2     or more machines to perform operations comprising:

3             detecting a request to modify the rules;

4             determining whether parameters for a rule have been received; and

5             if the parameters have been received, modifying the rules.

1           33.     The article of claim 26, wherein the instructions are further operable to cause one  
2     or more machines to perform operations comprising:

3             detecting a request to open a voice channel in response to the communication; and

4             establishing the voice channel using the wireless device.



1           34.    A framework for wireless sensor alerts, the framework comprising:  
2               a rule set comprising programmable rules that specify conditions under which  
3       communications are to be sent based on an environmental state in the vicinity of a wireless  
4       device and the communications to be sent;  
5               a rule editor operable to modify the rules in the rule set based on received rule  
6       parameters;  
7               a rule engine operable to:  
8                    receive a proposition for a rule, the proposition representing an environmental  
9       state in the vicinity of a wireless device,  
10                  compare the proposition against the rules, and  
11                  if the proposition satisfies a condition of at least one of the rules, determine, based  
12       on the satisfied rule, a communication for transmission to a wireless network.

1           35.    The framework of claim 34, wherein the environmental state comprises an  
2       environmental condition and a level of the environmental condition.

1           36.    The framework of claim 34, wherein at least one of the rules has multiple  
2       conditions that must be satisfied.

1           37.    The framework of claim 34, wherein the communication is destined for a second  
2       wireless device.

1           38.     The framework of claim 34, wherein at least one of the rules specifies a level that  
2     an environmental state must exceed for the rule to be satisfied.

1           39.     The framework of claim 34, wherein the rule editor is operable to:  
2     detect a request to modify the programmable rules;  
3     determine whether parameters for a rule have been received; and  
4     if the parameters have been received, modify the rules.

1           40.     A system for wireless sensor alerts, the system comprising:  
2                 a wireless network operable to receive communications from and send communications  
3     to wireless telephones;  
4                 a first wireless telephone operable to wirelessly send communications to and receive  
5     communications from the wireless network, the wireless telephone comprising:  
6                     a sensor operable to detect an environmental state in the vicinity of the wireless  
7     telephone and to generate a signal representative thereof,  
8                     a microprocessor coupled to the sensor, the microprocessor operable to:  
9                         detect the signal;  
10                         generate a rule proposition based on the signal, the proposition specifying  
11     an environmental condition and level associated with the state;  
12                         compare the rule proposition to rules in a remotely programmable rule  
13     database to determine whether the proposition satisfies a condition of a rule;  
14                         if the proposition satisfies a condition of a rule, determine, based on the  
15     satisfied rule, a message for communication to a second wireless telephone;  
16                         determine whether a communication regarding opening a voice channel in  
17     response to the message has been received from the second wireless telephone;  
18                         if the communication has been received, open a voice channel to the  
19     second wireless telephone;  
20                         detect a request to modify the programmable rules;  
21                         determine whether parameters for a rule have been received; and  
22                         if the parameters have been received, modify the rules, and

23 a transceiver coupled to the processor, the transceiver operable to send the  
24 message to the wireless network; and

25 the second wireless telephone, the second wireless telephone operable to wirelessly send  
26 communications to and receive communications from the wireless network, the wireless  
27 telephone operable to:

28 receive the message from the first wireless telephone,  
29 visually present the message,  
30 determine whether a user desires to open a voice channel to the first wireless  
31 telephone in response to the message,

32 if a user desires to open a voice channel in response to the message, send the  
33 communication regarding opening a voice channel to the wireless network for communication to  
34 the first wireless telephone,

35 visually present a user interface for modifying the rules,  
36 detect user commands indicating parameters for a rule, and  
37 send a communication containing the parameters to the wireless network for  
38 conveyance to the first wireless telephone.